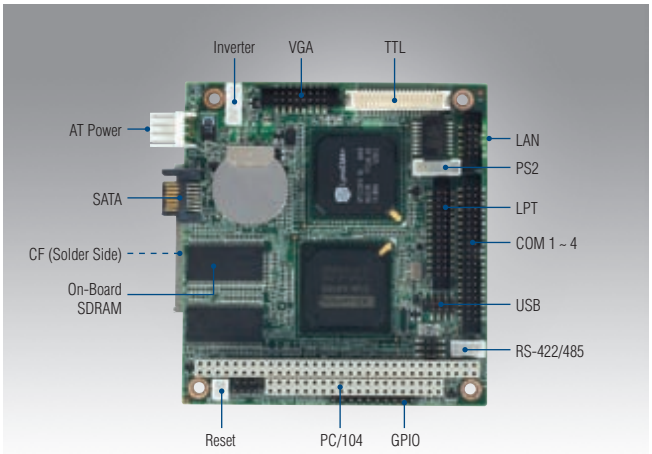
PC/104 Modules

Model Name		PCM-3342	PCM-3343	PCM-3353
Module Type		PC/104 CPU Module	PC/104 CPU Module	PC/104-Plus CPU Module
Processor System	CPU	Advantech EVA-X4150 SoC	DM&P Vortex86DX 1.0 GHz, support Floating point unit (FPU)	AMD Geode™ LX800, 500 MHz
	Front Side Bus	-	-	-
	Frequency	133 MHz	1.0GHz	500 MHz
	L2 Cache	-	256 KB	128 KB
	System Chipset	Advantech EVA-X4150 SoC	DM&P Vortex86DX- 1GHz	AMD Geode™ LX800, +AMD CS5536
	BIOS	Award 4M bit	Award integrated 16 Mbit ROM in SOC	Award 4-Mbit
Memory	Technology	SDRAM	DDR2 333 MHz SDRAM on board	DDR 333/400 MHz
	Max. Capacity	128 MB	512 MB	1 GB
	Socket	-	-	1 x 200-pin SODIMM
	On board memory	On board 64 MB	On board 256 MB	-
Display	Chipset	SMI SM712 2D graphic Chip	SMI SM712	AMD Geode™ LX800
	VRAM	4 MB internal memory	4 MB internal memory	Optimized Shared Memory Architecture up to 64 MB system memory
	Graphic Engine	62.5 MHz single clock/cycle engine (EM+) 86 MHz single clock/cycle engine (EM4+) Designed to accelerate DirectDraw	62.5 MHz single clock/cycle engine (EM+) 86 MHz single clock/cycle engine (EM4+) Designed to accelerate DirectDraw	-
	LVDS	-	Supports up to 1024 x 768 @ 24-bit LVDS LCD Panel	Supports up to 1600 x 1200 x 32 bpp at 60 Hz 18-bit LVDS Panel
	CRT	Supports up to 1024 x 768 @ 85 Hz	Supports up to 1024 x 768 @85Hz	Supports up to 1920x1440x32 bpp at 85 Hz Supports up to 1600x1200x32 bpp at 100 Hz
	TTL LCD	Supports up to 1024 x 768 @ 18bit TFT LCD Panel	Supports up to 1024 x 768 @ 24bit TFT LCD Panel	Supports up to 1600 x 1200 x 32 bpp at 60 Hz for 24-bit TFT
	Dual Display	CRT + TTL	CRT+TTL, CRT+LVDS	CRT+TTL, CRT+LVDS
Ethernet	Speed	10/100Mbps	10/100 Mbps	10/100 Mbps
	Controller	Realtek RTL8100CL	LAN1: FE LAN on Vortex86DX SOC LAN2: FE LAN RTL8100C-LF	Intel 82551ER
	Connector	Box header	Pin header	Box header
Audio	Chipset	-	-	Realtek ALC203
Watchdog Timer		System reset Programmable 1 ~ 255 sec	System reset Software programmable from 30.5μ sec.to 512 sec. x 2 sets	Output System reset Programmable 1 ~ 255 sec
Storage	CompactFlash	Supports CompactFlash Card TYPE I/II (Secondary IDE Channel)	Compact Flash socket (Type I/II), shared with primary IDE	Compact Flash socket (Type I)
	SATA	1	-	-
	IDE	-	1	1
	Floppy	1 (share with LPT)	-	-
	SPI Flash	-	Optional onboard 4MB SPI Flash Disk (Support by request)	-
	On board Flash	-	-	-
Internal I/O	USB	2 x USB 2.0	4 x USB 2.0	4 x USB 2.0
	Serial	3 RS-232, 1 RS-232/422/485	3 RS-232, 1 RS-232/422/485	3 RS-232, 1 RS-232/422/485
	IDE	-	1	1
	Parallel(LPT)	1 (share with FDD)	-	1
	FDD	1 (share with LPT)	-	-
	SMBUS	-	-	1
	KB/Mouse	1	1	1
	GPIO	8-bit general purpose input/output	16-bit general purpose input/output	8-bit general purpose input/output
	IrDA	-	-	-
	I²C	-	1	-
Expansion	PC/104 Slot	1	1	-
	PC/104-Plus Slot	-	-	1
Power	Power Type	AT	AT	AT/ATX
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)	5V only to boot up (12 V is optional for LCD inverter and add on card)	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical)	-	0.83 A @ 5 V	+5 V @ 1.35 A, +12 V @ 0.1 A
	Power Consumption (Max, test in HCT)	0.71 A @ 5 V (PCM-3342F-64A1E)	1.04 A @5 V	+5 V @ 1.51 A, +12 V @ 0.1 A
	Power Management	-	-	APM1.2
	Battery	3 V/300 mAH	3 V/210 mAH	Lithium 3 V/210 mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing	-40° C ~ 85° C and 60° C @ 95% RH non-condensing	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")	96 x 90 mm (3.8" x 3.5")	96 x 115 mm (3.8" x 4.5")
	Weight	0.097 kg (0.214lb)	0.097 kg (0.214lb)	0.162 kg (0.357 lb)) (with heat-sink)
Reference Page		2-2	2-4	2-6

PCM-3355	PCM-3362	PCM-3375	PCM-4153
PC/104 CPU Module	PC/104-Plus CPU Module	PC/104 CPU Module	PC/104-Plus CPU Module
AMD Geode™ LX800, 500 MHz / AMD Geode™ LX600, 366 MHz	Intel® Atom™ N450 1.66 GHz	Embedded low-power onboard VIA Mark 533 MHz processor	AMD Geode™ LX800, 500 MHz
-	667 MHz	-	-
500 MHz/366 MHz	1.66 GHz	533 MHz	500 MHz
128 KB	512 KB	64 KB	128KB
AMD Geode™ LX800/LX600, 500/366 MHz	Intel® Atom™ N450 + ICH8M	VIA MARK 533MHz + VIA 686B	AMD Geode™ LX800, +AMD CS5536
Award 4-Mbit	AMI 16Mbit	Award 2-Mbit	Award 4-Mbit
DDR 333/400 MHz	DDR2 667 MHz	PC/100/133 SDRAM	DDR 333/400 MHz
1 GB	2 GB	512 MB	512 MB
1 x 200-pin SODIMM	1 x 200-pin SODIMM	1 x 144-pin SODIMM	-
-	-	-	512 MB
AMD Geode™ LX800/LX600 +AMD CS5536	Intel® Atom™ N450 1.66 GHz	VIA MARK 533MHz	AMD Geode™ LX800
Optimized Shared Memory Architecture up to 64 MB system memory	Shared system memory up to 224 MB	Up to 32 MB frame buffer shares the system memory	Optimized Shared Memory Architecture up to 64 MB system memory
-	Intel Gen 3.5 DX9, MPEG2 Decode in HW Embedded Gen3.5+ GFX Core	Integrated ProSavage4 Graphics with D /3D/Video Controllers Optimized Shared Memory Architecture (SMA) Full internal AGP 4x performance	-
-	Singe channel 18-bit LVDS up to WXGA 1366 x 768	1 x dual channel 18-bit LVDS up to 1600x1200 with 256 gray shade support	-
Supports up to 1920x1440x32 bpp at 85 Hz Supports up to 1600x1200x32 bpp at 100 Hz	Supports up to SXGA 1400 x 1060 @ 60 Hz	Supports up to 1920 x 1440	Supports up to 1920x1440x32 bpp at 85 Hz Supports up to 1600x1200x32 bpp at 100 Hz
Supports up to 1600x1200x32 bpp at 60 Hz for 24-bit TFT	-	1 x 24-bit TTL up to 1600 x 1200	Supports up to 1600x1200x32 bpp at 60 Hz for 24-bit TFT
CRT+TTL	CRT+LVDS	CRT+LVDS, CRT_TTL	CRT+TTL
10/100 Mbps	10/100/1000 Mbps	10/100 Mbps	10/100 Mbps
Intel 82551QM	Intel 82567V	Intel 82551ER	LAN1: Intel 82551ER LAN2:Intel 82551ER
Box header	Pin header	Box header	Box header
-	-	-	Realtek ALC203
Output System reset Programmable 1 ~ 255 sec	Output System reset Programmable 1 ~ 255 sec	Output System reset Programmable 62 level timer	Output System reset Programmable 1 ~ 255 sec
Compact Flash socket (Type I)	-	Compact Flash socket (Type I)	Compact Flash socket (Type I)
1 (Transfer from IDE)	1	-	-
-	-	1	1
1 (share with LPT)	-	1 (UDMA 33)	-
-	-	1	-
-	2 GB	-	1 GB (up to 4 GB)
2 x USB 2.0	4 x USB 2.0	2 x USB 1.1, Open HCI compliant	4 x USB 2.0
2 RS-232, 1 RS-422/485	2 RS-232, 1 RS-422/485	1 RS-232, 1 RS-232/422/485	3 RS-232, 1 RS-232/422/485
-	-	1 (UDMA 33)	1
1	-	1	1
1 (share with LPT)	-	1	-
1	-	1	1
1	1	1	1
-	8-bit general purpose input/output	8-bit general purpose input/output	8-bit general purpose input/output
-	-	1 x 115 kbps SIR, IrDA 1.0 compliant	-
-	1	-	-
1	-	1	-
-	1	-	1
AT	AT/ATX	AT	AT
5V only to boot up (12 V is optional for LCD inverter and add on card)	5V only to boot up (12 V is optional for LCD inverter and add on card)	5V only to boot up (12 V is optional for LCD inverter and add on card)	5V only to boot up (12 V is optional for LCD inverter and add on card)
+5 V @ 1.45 A, +12 V@ 2mA	+5 V @ 2 A, +12 V @ 5mA	+5 V @ 1.94 A	+5 V @ 1.35 A, +12 V @ 0.1 A
+5 V @ 1.74 A, +12 V @ 0.1 A	+5 V @ 2.37 A, +12 V @ 7mA	+5 V @ 2.06 A	+5 V @ 1.51 A, +12 V @ 0.1 A
APM1.2	APM1.2/ACPI2.0	APM 1.2	APM1.2
Lithium 3 V / 210 mAH	Lithium 3 V / 210 mAH	Lithium 3 V / 210 mAH	Lithium 3 V / 210 mAH
0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
-40° C ~ 85° C and 60° C @ 95% RH non-condensing	-40° C ~ 85° C and 60° C @ 95% RH non-condensing	-40° C ~ 85° C and 60° C @ 95% RH non-condensing	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
96 x 90 mm (3.8" x 3.5")	96 x 90 mm (3.8" x 3.5")	96 x 90 mm (3.8" x 3.5")	96 x 115 mm (3.8" x 4.5")
0.097 kg (0.214lb)	0.162 kg (0.357 lb)) (with heat-sink)	0.162 kg (0.357 lb)) (with heat-sink)	0.162 kg (0.357 lb)) (with heat-sink)
2-8	2-10	2-12	2-14

PCM-3342

EVA-X4150 X86 SOC PC/104 SBC, CRT, TTL, LAN, USB, SATA, COM, CFC



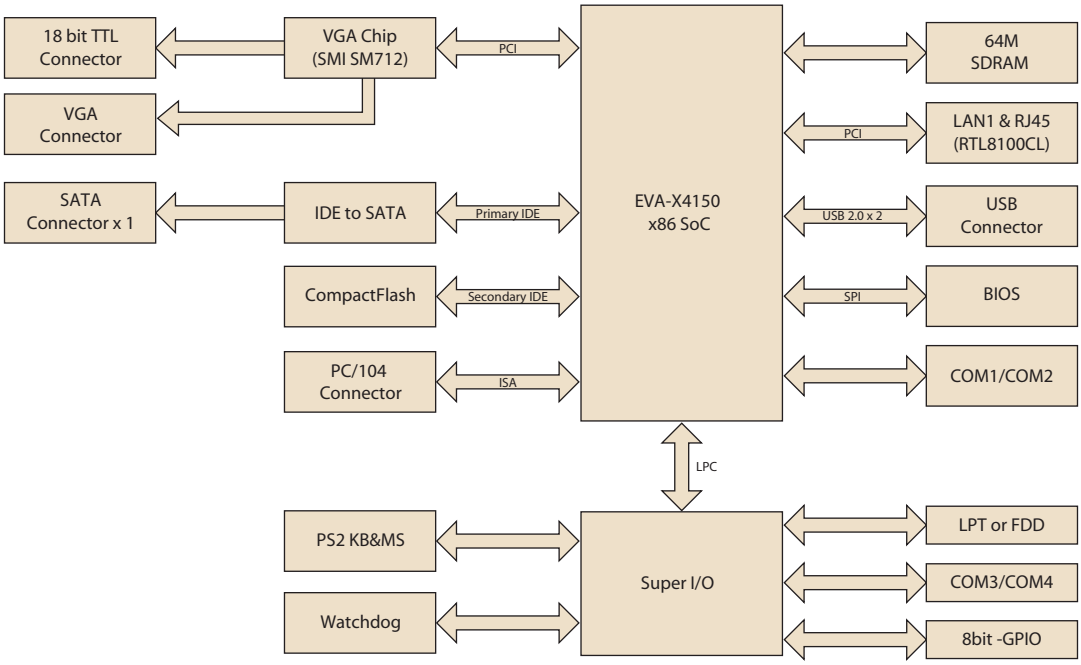
Features

- Low Power x86 SoC
- Total less than 4 W power consumption
- 64 MB SDRAM onboard
- PC/104 96 x 90mm standard dimension
- Supports 4 COM Ports

Specifications

Processor System	CPU	Advantech EVA-X4150 SoC
	Frequency	133 MHz
	System Chipset	Advantech EVA-X4150 SoC
	BIOS	Award 4M bit
Memory	Technology	SDRAM
	Max. Capacity	128 MB
	On board memory	On board 64 MB
Display	Chipset	SMI SM712 2D graphic Chip
	VRAM	4 MB internal memory
	Graphic Engine	62.5 MHz single clock/cycle engine (EM+) 86 MHz single clock/cycle engine (EM4+) Designed to accelerate DirectDraw
	CRT	Supports up to 1024 x 768 @ 85 Hz
	TTL LCD	Supports up to 1024 x 768 @18 bit TFT LCD Panel
	Dual Display	CRT + TTL
Ethernet	Speed	10/100Mbps
	Controller	Realtek RTL8100CL
	Connector	Box header
Watchdog Timer		System reset Programmable 1 ~ 255 sec
Storage	CompactFlash	Supports CompactFlash Card TYPE I/II (Secondary IDE Channel)
	SATA	1
	Floppy	1 (share with LPT)
Internal I/O	USB	2 x USB 2.0
	Serial	3 RS-232, 1 RS-232/422/485
	Parallel(LPT)	1 (share with FDD)
	FDD	1 (share with LPT)
	KB/Mouse	1
	GPIO	8-bit general purpose input/output
Expansion	PC/104 slot	1
Power	Power Type	AT
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Max, test in HCT)	0.71 A @ 5 V (PCM-3342F-64A1E)
	Battery	3 V/300mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
	Weight	0.097 kg (0.214lb)

Board Diagram



Ordering Information

Model	CPU	L2 Cache	Chipset	SDRAM DIMM	CRT	LVDS	TTL	LAN	Audio	USB 2.0	RS-232	RS-232 /422/485	LPT	FDD	KB/MS	Expansion	Thermal	Operation Temp
PCM-3342F-64A1E	EVA-X4150	-	EVA-X4150	Onboard 64M	Yes	-	Yes	1 FE	-	2	3	1	1 (Share FDD)	1 (Share LPT)	Yes	PC/104	Passive	0 ~ 60° C
PCM-3342L-64A1E	EVA-X4150	-	EVA-X4150	Onboard 64M	-	-	-	1 FE	-	2	3	1	1 (Share FDD)	1 (Share LPT)	Yes	PC/104	Passive	0 ~ 60° C
PCM-3342FZ-64A1E	EVA-X4150	-	EVA-X4150	Onboard 64M	Yes	-	Yes	1 FE	-	2	3	1	1 (Share FDD)	1 (Share LPT)	Yes	PC/104	Passive	-20 ~ 80° C
PCM-3342FZ2-64A1E	EVA-X4150	-	EVA-X4150	Onboard 64M	Yes	-	Yes	1 FE	-	2	3	1	1 (Share FDD)	1 (Share LPT)	Yes	PC/104	Passive	-40 ~ 85° C

Packing List

Part No.	Description	Quantity
	PCM-3342 SBC	
	Startup Manual	
	Utility CD	
1700260250	LPT Port cable 25P to 26P 2.0 mm 25 cm	x1
1701100202	LAN FLAT CABLE IDC10P 2.0 mm/RJ-45 20 cm	x1
1701160150	VGA Cable 15P to 16P 2.0 mm D-SUB 15 cm	x1
1701400181	COM 4 port FLAT CABLE 18 cm IDC40P 2.0 mm	x1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	x1
1703060053	PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm	x1
1700008894	SATA 7P 30 cm cable	x1
1703100121	USB 2 Ports cable 10P 12 cm IDC 2.0 mm	x1
1700060202	CABLE 6P-6P-6P PS/2 KB & MOUSE 20cm	x1
9660104000	PC/104 screw and copper post package	x1

Optional Accessories

Part No.	Description
1700001531	LPT to FDD cable
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)

Embedded OS

Part No.	Description
WinCE 5.0	2070006989: Image CE 5.0 Pro EVA-4150-4COM V1.1 ENG
WinCE 6.0	2070006949: Image CE 6.0 Pro EVA-4150-4COM V1.1 ENG

PCM-3343

DM&P Vortex86DX-1GHz PC/104 SBC, LCD, LAN, CFC, On board memory

Features

- Ultra low power, fanless DM&P Vortex86DX- 1 GHz and 256 MB on-board DDR2 memory
- CRT+LCD dual video outputs, 24-bit LVDS/TTL support
- Integrate Floating-point Unit
- Support 2 LAN ports in standard PC/104 96 x 90 mm dimension
- Supports Embedded Software APIs and Utilities

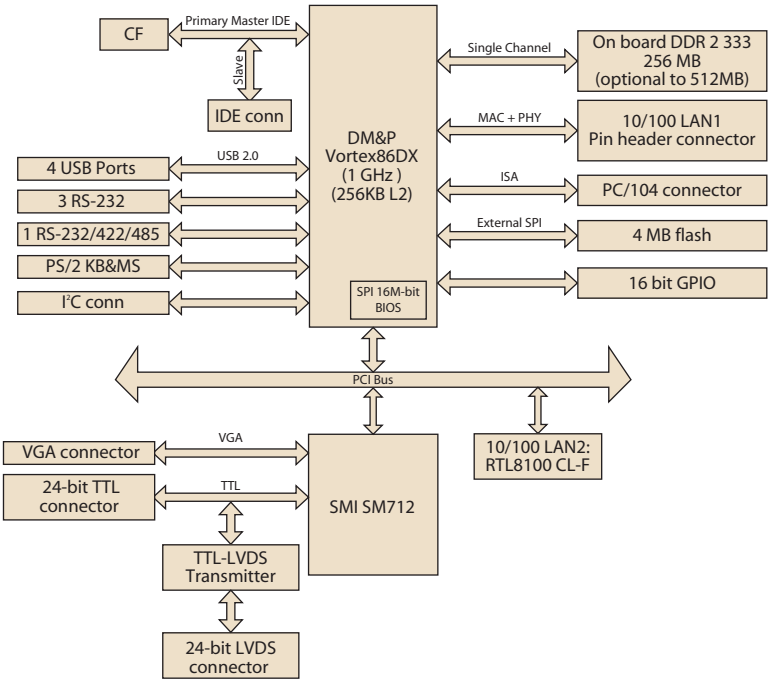
Software APIs: Watchdog, I²C, Brightness, GPIO, Backlight On/Off

Utilities: BIOS flash, eSOS, Flash Lock, Embedded Security ID

Specifications

Processor System	CPU	DM&P Vortex86DX 1.0 GHz, support Floating point unit (FPU)
	Frequency	1.0 GHz
	L2 Cache	256 KB
	System Chipset	DM&P Vortex86DX- 1 GHz
	BIOS	Award integrated 16 Mbit ROM in SOC
Memory	Technology	DDR2 333 MHz SDRAM on board
	Max. Capacity	512 MB
	On board memory	On board 256 MB (512 MB support by request)
Display	Chipset	SMI SM712
	VRAM	4 MB internal memory
	Graphic Engine	62.5 MHz single clock/cycle engine (EM+) 86 MHz single clock/cycle engine (EM4+) Designed to accelerate DirectDraw
	LVDS	Supports up to 1024 x 768 @ 24-bit LVDS LCD Panel
	CRT	Supports up to 1024 x 768 @ 85 Hz
	TTL LCD	Supports up to 1024 x 768 @ 24 bit TFT LCD Panel
	Dual Display	CRT+TTL, CRT+LVDS
Ethernet	Speed	10/100 Mbps
	Controller	LAN1: FE LAN on Vortex86DX SOC LAN2: FE LAN RTL8100C-LF
	Connector	Pin header
Watchdog Timer		System reset Software programmable from 30.5μ sec. to 512 sec. x 2 sets
Storage	CompactFlash	Compact Flash socket(Type I/II),shared with primary IDE
	IDE	1
	SPI Flash	Optional onboard 4 MB SPI Flash Disk (Support by request for boot device or storage on DOS OS)
Internal I/O	USB	4 x USB 2.0
	Serial	3 RS-232, 1 RS-232/422/485
	IDE	1
	KB/Mouse	1
	GPIO	16-bit general purpose input/output
	I²C	1
Expansion	PC/104 slot	1
Power	Power Type	AT
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical: Idle in WinXPe)	0.74 @ 5 V (Vortex86DX 1 GHz, DDR2 667 256 MB)
	Power Consumption (Max, test in passmark burn-in program)	0.85 A @5 V (Vortex86DX 1 GHz, DDR2 667 256 MB)
	Battery	3 V/210 mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
	Weight	0.097 kg (0.214lb)

Board Diagram



Ordering Information

Model	CPU	L2 Cache	Memory	CRT	LVDS	TTL	LAN	USB 2.0	RS-232	RS-232 /422/485	IDE	KB/MS	External SPI flash	Thermal solution	Expansion	Operation Temp
PCM-3343L-256A1E	DM&P Vortex86DX 1 GHz	256 KB	Onboard 256M	-	-	-	1 FE	2	1	1	1	Yes	-	Passive	PC/104	0 ~ 60° C
PCM-3343F-256A1E	DM&P Vortex86DX 1 GHz	256 KB	Onboard 256M	Yes	Yes	1	2 FE	4	3	1	1	Yes	-	Passive	PC/104	0 ~ 60° C
PCM-3343Z-256A1E	DM&P Vortex86DX 800 MHz	256 KB	Onboard 256M	Yes	Yes	1	2 FE	4	3	1	1	Yes	-	Passive	PC/104	-20 ~ 80° C
PCM-3343Z2-256A1E	DM&P Vortex86DX 800 MHz	256 KB	Onboard 256M	Yes	Yes	1	2 FE	4	3	1	1	Yes	-	Passive	PC/104	-40 ~ 85° C

Packing List

Part No.	Description	Quantity
	PCM-3343 SBC	
	Startup Manual	
	Utility CD	
1700060202	CABLE 6P-6P-6P PS/2 KB & MOUSE 20 cm	x1
1703060053	PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm	x1
1703100260	USB cable 2 port 2.0 mm pitch w/ bracket 26 cm	x1
1701200220	RS-232 x 2 ports 2.0mm pitch 22 cm	x1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	x1
1700000898	VGA cable D-SUB 15P(F)/12P-1.25 mm 15 cm	x1
1700017863	LAN cable RJ45/2 x 5P-2.0 15 cm	x1
9660104000	PC/104 screw and copper post package	x1

Embedded OS

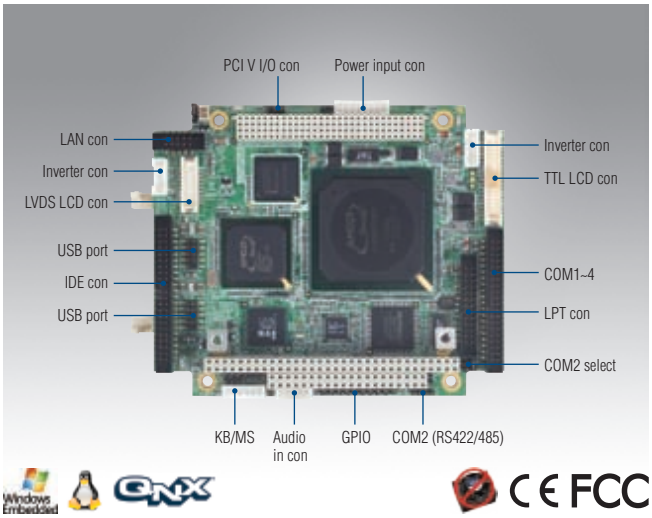
Part No.	Description
WinCE 6.0	2070009536: CE 6.0 Pro PCM-3343 V1.3 ENG
Win XPE	2070009528: XPE WES2009 Vortex86DX V4.0 ENG 2070009529: XPE WES2009 Vortex86DX V4.0 MUI24
SUSI	205E343000: SUSI 3.0 SW API for PCM-3343 B:20091209 XP

Optional Accessories

Part No.	Description
1701440350	IDE cable 44P/44P/44P 35 cm

PCM-3353

AMD LX800 PC/104-Plus SBC, CRT, LVDS, TTL, LAN, USB, COM, CFC



Features

- AMD low power LX800 500 MHz processor
- 24-bit TFT LCD interface, 18-bit LVDS LCD display
- PC/104-plus Expansion
- Supports up to 4 COM ports, 4 USB ports
- Supports Embedded Software API and Utility

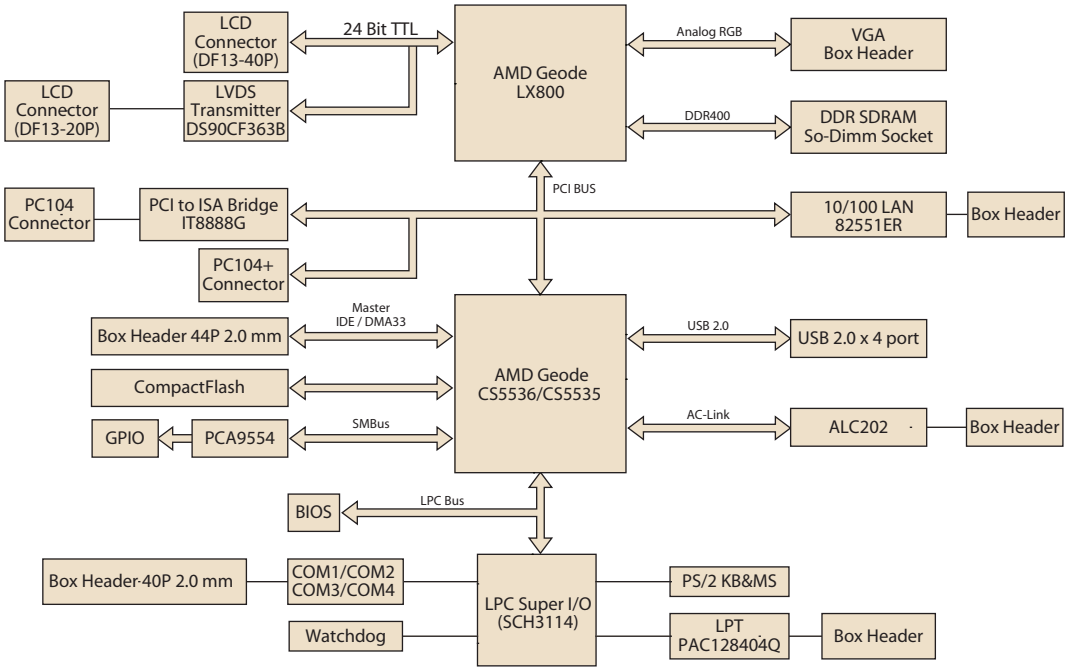
Software APIs: SMBus, H/W Monitor, Watchdog, GPIO, Backlight On/Off

Utilities: BIOS flash, Monitoring

Specifications

Processor System	CPU	AMD Geode™ LX800, 500 MHz
	Frequency	500 MHz
	L2 Cache	128 KB
	System Chipset	AMD Geode™ LX800, +AMD CS5536
	BIOS	Award 4-Mbit
Memory	Technology	DDR 333/400 MHz
	Max. Capacity	1 GB
	Socket	1 x 200-pin SODIMM
Display	Chipset	AMD Geode™ LX800
	VRAM	Optimized Shared Memory Architecture up to 64 MB system memory
	LVDS	Supports up to 1600 x 1200 x 32 bpp at 60 Hz 18-bit LVDS Panel
	CRT	Supports up to 1920 x 1440 x 32 bpp at 85 Hz Supports up to 1600 x 1200 x 32 bpp at 100 Hz
	TTL LCD	Supports up to 1600 x 1200 x 32 bpp at 60 Hz for 24-bit TFT
	Dual Display	CRT+TTL, CRT+LVDS
Ethernet	Speed	10/100 Mbps
	Controller	Intel 82551ER
	Connector	Box header
Audio	Chipset	Realtek ALC203
Watchdog Timer		Output System reset Programmable 1 ~ 255 sec
Storage	CompactFlash	Compact Flash socket (Type I)
	IDE	1
Internal I/O	USB	4 x USB 2.0
	Serial	3 RS-232, 1 RS-232/422/485
	IDE	1
	Parallel(LPT)	1
	SMBUS	1
	KB/Mouse	1
	GPIO	8-bit general purpose input/output
Expansion	PC/104-Plus slot	1
Power	Power Type	AT/ATX
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical)	+5 V @ 1.35 A, +12 V @ 0.1 A
	Power Consumption (Max, test in HCT)	+5 V @ 1.51 A, +12 V @ 0.1 A
	Power Management	APM1.2
	Battery	Lithium 3 V / 196 mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 115 mm (3.8" x 4.5")
	Weight	0.162 kg (0.357 lb) (with heat-sink)

Board Diagram



Ordering Information

Part No.	CPU	Memory	Chipset	CRT	TTL	LVDS	LAN	USB2.0	RS-232	RS232/422/485	LPT/KB/MS	Audio	PC/104+ connector	Thermal Solution	Operating Temp.	Embedded OS
PCM-3353F-L0A1E	AMD LX800	SO-DIMM	CS5536	Yes	18/24-bit	18-bit	1 FE	4	3	1	Yes	Yes	Yes	Passive	0 ~ 60° C	Optional
PCM-3353Z-L0A1E	AMD LX800	SO-DIMM	CS5536	Yes	18/24-bit	18-bit	1 FE	4	3	1	Yes	Yes	Yes	Passive	-20 ~ 80° C	Optional
PCM-3353Z2-L0A1E	AMD LX800	SO-DIMM	CS5536	Yes	18/24-bit	18-bit	1 FE	4	3	1	Yes	Yes	Yes	Passive	-40 ~ 85° C	Optional

Note: Wide temp version (Z/Z2) should bundle with wide temp DDR SDRAM Memory (PN:96SDI-512M333N-AP) for shipment, otherwise it will cause unexpected system crash.

Packing List

Part No.	Description	Quantity
	PCM-3353 SBC	
	Startup Manual	
	Utility CD	
1700000898	VGA cable D-SUB 15P(F)/12P-1.25 mm 15 cm	x1
1700000918	Audio cable 10 cm	x1
1700003491	AT power cable 1 x 8P-2.0/B4P-5.08 x 2 15 cm	x1
1700060202	Cable 6P-6P-6P PS/2 KB & Mouse 20 cm	x1
1700260250	LPT Port cable 25P to 26P 2.0 mm 25 cm	x1
1701100202	LAN FLAT CABLE IDC10P 2.0 mm/RJ-45 20 cm	x1
1701400181	COM 4 ports FLAT CABLE 18 cm IDC40P 2.0 mm	x1
1701440350	IDE cable 44P/44P/44P 35CM	x1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	x1
1703060053	PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm	x1
1703100121	USB 2Ports cable 10P 12 cm IDC 2.0 mm	x1
9660104000	PC/104 screw and copper post package	x1

Embedded OS/API

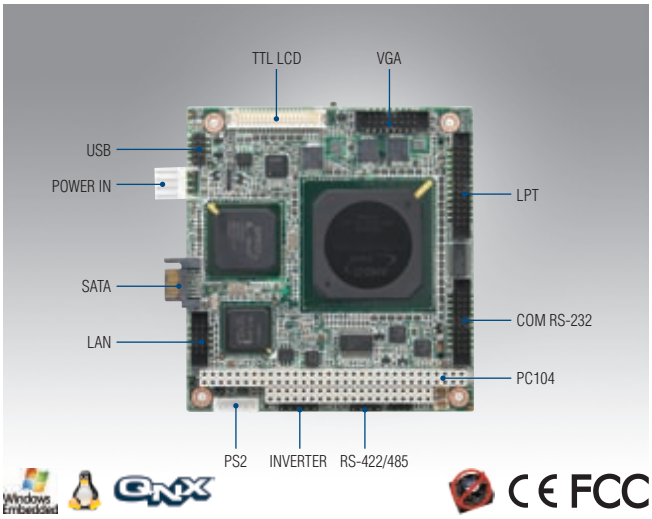
Embedded OS/API	Description
WinCE 5.0	2070000729: Image PCM-3353 CE 5.0 Pro Plus Eng
WinCE 6.0	2070001612: CE6.0 Pro GX3 4 Com V1.0 ENG 2070005769: CE6.0 Pro GX3 2 COM V1.1 JPN
Win XPE	2070001576: XPE FP2007 GX3 (LX800) V3.0 ENG 2070003216: XPE FP2007 GX3 Group V3.1 ENG (717.22 MB) 2070003557: XPE FP2007 GX3 Group V3.0 CHS (641.41 MB) 2070005811: XPE FP2007 PCM-3353 V3.5.0 JPN/ENG 2070007910: XPE WES2009 GX3 LX800 V4.0 MUI24
Software API	205E000019: SUSI 3.0 SW API for ESBC B: 20091116 XP
QNX	QNX 6.3.2 QNX 6.4.1

Optional Items

Part No.	Description
96SDI-512M333N-AP	Apacer Wide Temp Memory -40° C ~ 85° C
1653130421	PCI-104 connector 120pin (Long pin)
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)

PCM-3355

AMD LX800/LX600 PC/104 SBC, CRT, TTL, LAN, USB, COM, CFC



Features

- AMD low power LX800/500 MHz and LX600/366 MHz Processor
- 24-bit TFT LCD interface
- Supports compact size 96 x 90 mm PC/104 standard dimension
- Supports two RS-232, one RS-422/485, and two USB 2.0 ports
- Supports Embedded Software API and Utility

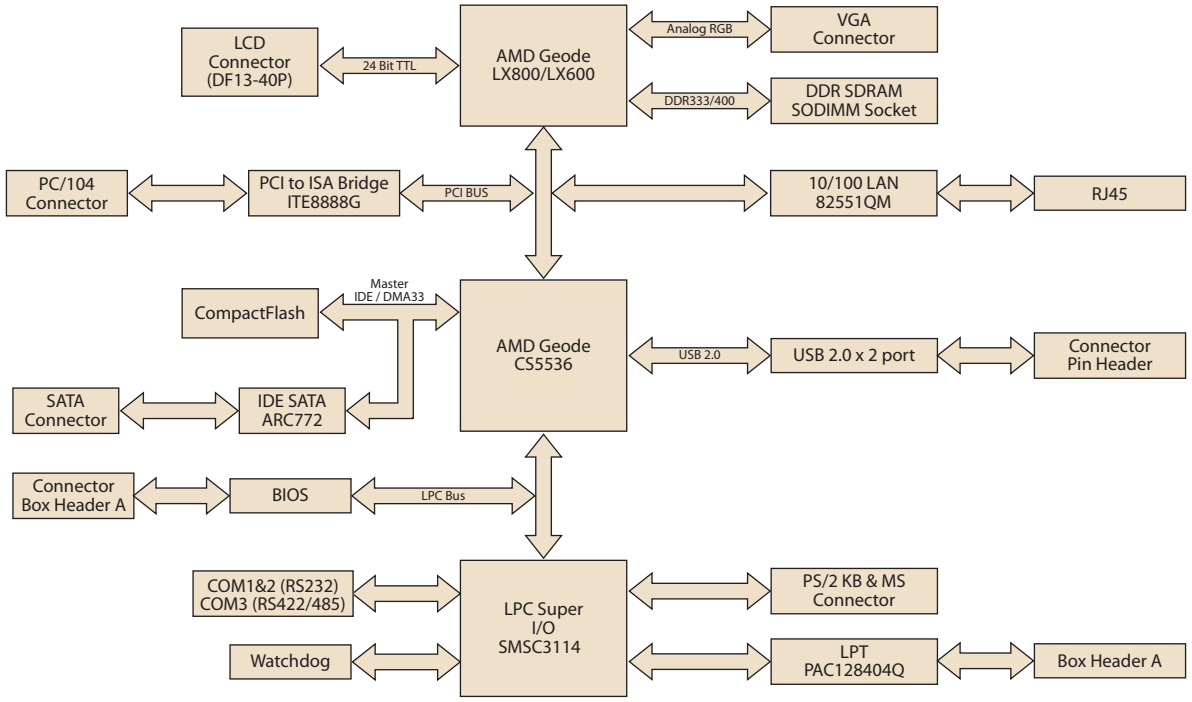
Software APIs: Watchdog, SMBus, Brightness, H/W Monitor, Backlight On/Off

Utilities: BIOS flash, Monitoring

Specifications

Processor System	CPU	AMD Geode™ LX800, 500 MHz/AMD Geode™ LX600, 366 MHz
	Frequency	500 MHz/ 366 MHz
	L2 Cache	128 KB
	System Chipset	AMD Geode™ LX800/LX600, 500/366 MHz
	BIOS	Award 4-Mbit
Memory	Technology	DDR 333/400 MHz
	Max. Capacity	1 GB
	Socket	1 x 200-pin SODIMM
Display	Chipset	AMD Geode™ LX800/LX600 +AMD CS5536
	VRAM	Optimized Shared Memory Architecture up to 64 MB system memory
	CRT	Supports up to 1920 x 1440 x 32 bpp at 85 Hz Supports up to 1600 x 1200 x 32 bpp at 100 Hz
	TTL LCD	Supports up to 1600 x 1200 x 32 bpp at 60 Hz for 24-bit TFT
	Dual Display	CRT+TTL
Ethernet	Speed	10/100 Mbps
	Controller	Intel 82551QM
	Connector	Box header
Watchdog Timer		Output System reset Programmable 1 ~ 255 sec
Storage	CompactFlash	Compact Flash socket (Type I)
	SATA	1 (Transfer from IDE)
	Floppy	1 (share with LPT)
Internal I/O	USB	2 x USB 2.0
	Serial	2 RS-232, 1 RS-422/485
	Parallel(LPT)	1
	FDD	1 (share with LPT)
	SMBUS	1
	KB/Mouse	1
Expansion	PC/104 slot	1
Power	Power Type	AT
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical)	+5 V @ 1.45 A, +12 V @ 2 mA
	Power Consumption (Max, test in HCT)	+5 V @ 1.74 A, +12 V @ 0.1 A
	Power Management	APM1.2
	Battery	Lithium 3 V/210 mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
	Weight	0.097 kg (0.214lb)

Board Diagram



Ordering Information

Part No.	CPU	Chipset	Memory	TTL	SATA	LAN	USB2.0	RS-232	RS-422/485	LPT/KB/MS	PC/104 connector	Thermal Solution	Operating Temp.	Embedded OS
PCM-3355F-L0A1E	AMD LX800	CS5536	SO-DIMM	24-bit	Yes	1 FE	2	2	1	Yes	Yes	Passive	0 ~ 60° C	Optional
PCM-3355L-J0A1E	AMD LX600	CS5536	SO-DIMM	24-bit	No	1 FE	2	2	1	Yes	Yes	Passive	0 ~ 60° C	Optional
PCM-3355Z-512LA1E	AMD LX800	CS5536	512MB bundle	24-bit	Yes	1 FE	2	2	1	Yes	Yes	Passive	-20 ~ 80° C	Optional
PCM-3355Z2-512LA1E	AMD LX800	CS5536	512MB bundle	24-bit	Yes	1 FE	2	2	1	Yes	Yes	Passive	-40 ~ 85° C	Optional

Note: Wide temp version has been bundled with extended temperature grade memory module

Packing List

Part No.	Description	Quantity
	PCM-3355 SBC	
	Startup Manual	
	Utility CD	
1700060202	Cable 6P-6P-6P PS/2 KB & Mouse 20 cm	x1
1700260250	LPT Port cable 25P to 26P 2.0 mm 25 cm	x1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	x1
1703060053	PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm	x1
1703100121	USB 2Ports cable 10P 12 cm IDC 2.0 mm	x1
1700008894	SATA data cable 7P 30 cm	x1
1703150102	SATA power cable B4P-5.08/SATA 15P 10 cm	x1
1701200220	RS-232 x 2 ports 2.0 mm 22 cm	x1
1701160150	VGA Cable 15P to 16P 2.0 mm D-SUB 15 cm	x1
1700005158	LAN cable RJ45 10P-2.0 mm 12 cm	x1
9660104000	PC/104 screw and copper post package	x1

Embedded OS/API

Embedded OS/API	Description
WinCE 6.0	2070007869: Image CE 6.0 Pro PCM-3355 V1.2 ENG
Win XPE	2070007790: XPE WES2009 PCM-3355 Image GX3 V4.0 ENG (559.91 MB) 2070007910: XPE WES2009 GX3 LX800 V4.0 MUI24
Software API	205E000019: SUSI 3.0 SW API for ESBC B: 20091116 XP
QNX	QNX 6.3.2 QNX 6.4.1

Optional Items

Part No.	Description
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)

PCM-3362

Intel® Atom™ N450 PC/104-Plus SBC, CRT, LVDS, LAN, USB, COM, SATA, On-board Flash

Features

- Intel® Atom™ N450 1.66 GHz Processor and DDR2 667 SDRAM up to 2 GB
- Supports extended temperature -40 ~ 85° C
- Standard 96 x 90 mm dimension and PC/104-Plus expansion connector
- On board 2 GB flash (4 GB optional)
- Supports embedded software APIs and Utilities

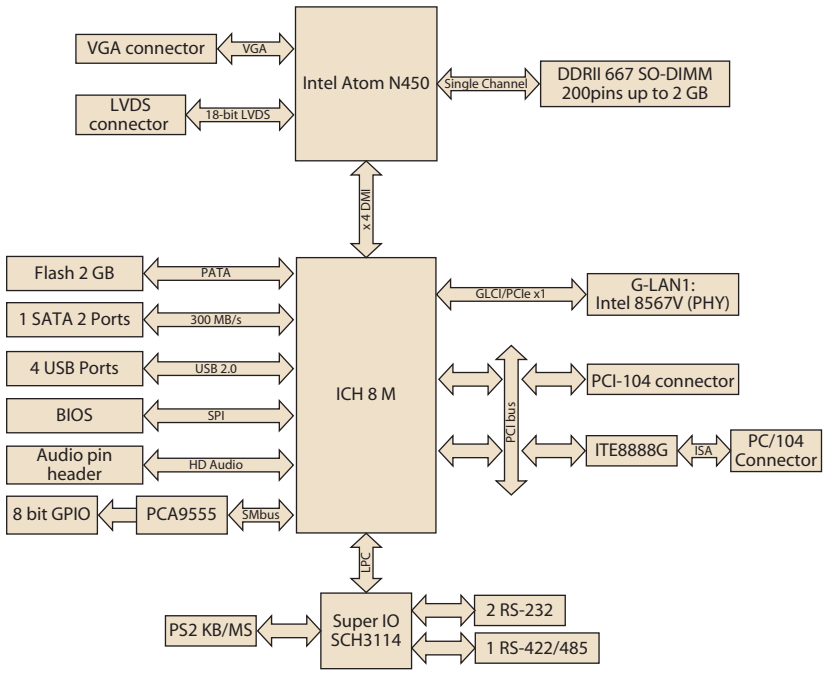
Software APIs: Watchdog, I²C, Brightness, H/W Monitor, GPIO, Backlight On/Off

Utilities: Monitoring, eSOS, Embedded Security ID

Specifications

Processor System	CPU	Intel Atom N450 1.66 GHz
	Front Side Bus	667 MHz
	Frequency	1.66 GHz
	L2 Cache	512 KB
	System Chipset	Intel Atom N450 + ICH8M
	BIOS	AMI 16 Mbit
Memory	Technology	DDR2 667 MHz
	Max. Capacity	2 GB
	Socket	1 x 200-pin SODIMM
Display	Chipset	Intel Atom N450 1.66 GHz
	VRAM	Shared system memory up to 224 MB
	Graphic Engine	Intel Gen 3.5 DX9, MPEG2 Decode in HW Embedded Gen3.5+ GFX Core
	LVDS	Singe channel 18-bit LVDS up to WXGA 1366 x 768
	CRT	Supports up to SXGA 1400 x 1060 @ 60 Hz
	Dual Display	CRT+LVDS
Ethernet	Speed	10/100/1000 Mbps
	Controller	Intel 82567V
	Connector	Pin header
Watchdog Timer		Output System reset Programmable 1 ~ 255 sec
Storage	SATA	1
	On board Flash	2 GB
Internal I/O	USB	4 x USB 2.0
	Serial	2 RS-232, 1 RS-422/485
	KB/Mouse	1
	GPIO	8-bit general purpose input/output
	I²C	1
Expansion	PC/104-Plus slot	1
Power	Power Type	AT/ATX
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical)	+5 V @ 2 A, +12 V @ 5mA
	Power Consumption (Max, test in HCT)	+5 V @ 2.37 A, +12 V @ 7mA
	Battery	Lithium 3 V / 210 mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
	Weight	0.162 kg (0.357 lb) (with heat-sink)

Board Diagram



Ordering Information

Part No.	CPU	Chipset	On board flash	CRT	Memory	LVDS	LAN	USB2.0	RS-232	RS-422/485	Thermal Solution	Operating Temp.	Embedded OS
PCM-3362N-S6A1E	Atom N450	ICH8M	2 GB	Yes	SO-SIMM	18-bit	1 GbE	4	2	1	Passive	0 ~ 60° C	Optional
PCM-3362Z-1GS6A1E	Atom N450	ICH8M	2 GB	Yes	1 GB bundle	18-bit	1 GbE	4	2	1	Passive	-20 ~ 80° C	Optional
PCM-3362Z2-1GS6A1E	Atom N450	ICH8M	2 GB	Yes	1 GB bundle	18-bit	1 GbE	4	2	1	Passive	-40 ~ 85° C	Optional

Note: Wide temp version has been bundled with extended temperature grade memory module

Packing List

Part No.	Description	Quantity
	PCM-3362 SBC	
	Startup Manual	
	Utility CD	
1700000898	VGA cable D-SUB 15P(F)/12P-1.25 mm15 cm	x1
1700003491	AT power cable 1 x 8P-2.0/B4P-5.08 x 2 15 cm	x1
1700060202	Cable 6P-6P-6P PS/2 KB & Mouse 20 cm	x1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	x1
1703060053	PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm	x1
1700002332	ATX power cable 20P-13P/8P/3P/3P 13 cm	x1
1703100260	USB cable 2port 2.0 mm pitch w/ bracket 26 cm	x1
1700071000	SATA data cable 7p 100 cm	x1
1703150102	SATA power cable B4P-5.08/SATA 15P 10 cm	x1
1701200220	RS-232 x 2 ports 2.0 mm 22 cm	x1
1700017863	LAN cable RJ45/2 x 5P-2.0 15 cm	x1
9660104000	PC/104 screw and copper post package	x1

Optional Items

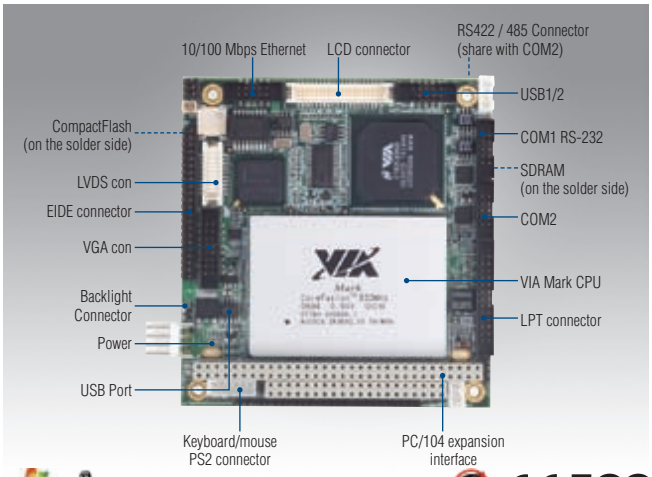
Part No.	Description
1960047106T001	Heat spreader (79.66 x 77.98 x 10.32 mm) of PCM-3362
1653130421	PCI-104 connector 120pin (Long pin)
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)

Embedded OS/API

Embedded OS/API	Description
WinCE 6.0	TBD
Win XPE	2070009030: XPE WES2009 Luna Pier V4.0 ENG 2070009031: XPE WES2009 Luna Pier V4.0 MUI24
Software API	205E362000: SUSI 3.0 SW API for PCM-3362 B:20091015 XP

PCM-3375

VIA Mark CoreFusion™ PC/104 SBC, CRT, LVDS, TTL, LAN, USB, COM, CFC



Features

- VIA Mark CoreFusion™ 533 MHz Processor
- PC/104 96x90 mm standard dimension
- 24-bit TFT LCD/36-bit LVDS support
- 10/100 Mbps Fast Ethernet

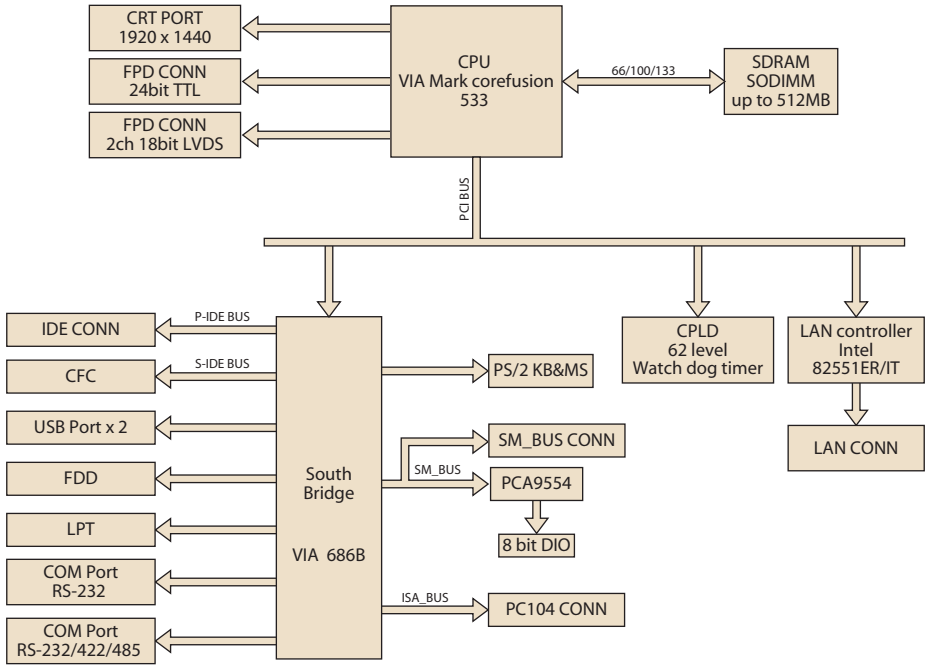
Software APIs: Watchdog, H/W Monitor, GPIO, Backlight On/Off

Utilities: BIOS flash, Monitoring

Specifications

Processor System	CPU	Embedded low-power onboard VIA Mark 533 MHz processor
	Frequency	533 MHz
	L2 Cache	64 KB
	System Chipset	VIA MARK 533MHz + VIA 686B
	BIOS	Award 2-Mbit
Memory	Technology	PC/100/133 SDRAM
	Max. Capacity	512 MB
	Socket	1 x 144-pin SODIMM
Display	Chipset	VIA MARK 533 MHz
	VRAM	Up to 32 MB frame buffer shares the system memory
	Graphic Engine	Integrated ProSavage4 Graphics with 2D/3D/Video Controllers Optimized Shared Memory Architecture (SMA) Full internal AGP 4 x performance
	LVDS	1 x dual channel 18-bit LVDS up to 1600 x 1200 with 256 gray shade support
	CRT	Supports up to 1920 x 1440
	TTL LCD	1 x 24-bit TTL up to 1600 x 1200
	Dual Display	CRT+LVDS, CRT+TTL
Ethernet	Speed	10/100 Mbps
	Controller	Intel 82551ER
	Connector	Box header
Watchdog Timer		Output System reset Programmable 62 level timer
Storage	CompactFlash	Compact Flash socket (Type I)
	IDE	1
	Floppy	1 (UDMA 33)
	SPI Flash	1
Internal I/O	USB	2 x USB 1.1, Open HCI compliant
	Serial	1 RS-232, 1 RS-232/422/485
	IDE	1 (UDMA 33)
	Parallel (LPT)	1
	FDD	1
	SMBUS	1
	KB/Mouse	1
	GPIO	8-bit general purpose input/output
	IrDA	1 x 115 kbps SIR, IrDA 1.0 compliant
Expansion	PC/104 slot	1
Power	Power Type	AT
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical)	+5 V @ 1.94 A
	Power Consumption (Max, test in HCT)	+5 V @ 2.06 A
	Power Management	APM 1.2
	Battery	Lithium 3 V/210 mAH
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
	Weight	0.162 kg (0.357 lb) (with heat-sink)

Board Diagram



Ordering Information

Part No.	CPU	Chipset	CRT	TTL	LVDS	LAN	USB 1.1	RS-232	RS-422/485	LPT	FDD	CF	KB/MS	PC/104 connector	Thermal Solution	Operating Temp.	Embedded OS
PCM-3375F-L0A1E	VIA Mark 533 MHz	VT82C686B	Yes	24-bit	2 x 18-bit	1 FE	2	1	1	Yes	Yes	Yes	Yes	Yes	Passive	0 ~ 60° C	Win CE (optional)

Packing List

Part No.	Description	Quantity
	PCM-3375 SBC	
	Startup Manual	
	Utility CD	
1703060053	KB/Mouse Y-cable EXT cable	x1
1700060202	KB/Mouse Y-cable (2 PS/2)	x1
9681000044	26-34-pin FDD adapter	x1
1701160150	VGA cable	x1
1701100202	Ethernet RJ-45 connector conversion cable 20 cm	x1
1701440504	IDE (HDD) cable 44P/44P/44P	x1
1700100250	COM port cable 25 cm	x1
1700260250	LPT port cable	x1
1701260125	FFC cable for slim FDD	x1
9660104000	PC/104 screw and copper post package	x1

Embedded OS/API

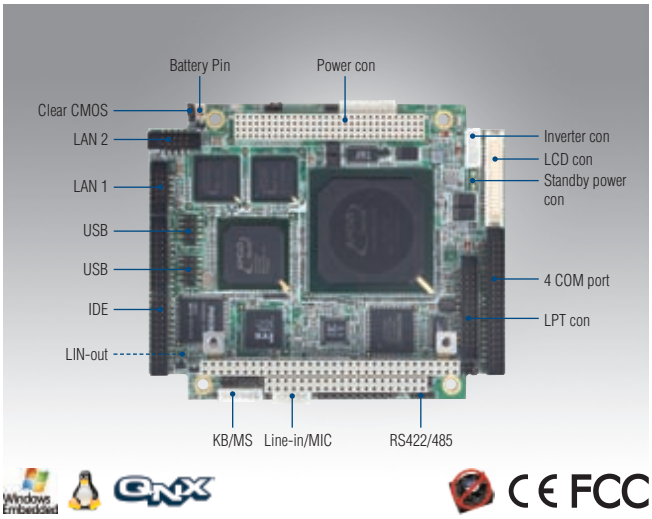
Embedded OS/API	Description
WinCE 6.0	2070001582: CE60 Pro Mark 2 Com V1.0 ENG
Win XPE	2070001577: XPE FP2007 VIA (VT8606_82C686B) V3.0 ENG 2070003555: VT8606 Group V3.0 CHS (668.89 MB) 2070006889: XPE FP2007 PCM-3375 V3.01 ENG

Optional Accessary

Part No.	Dexcription
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)

PCM-4153

AMD LX800 PC/104-Plus SBC, On-board Memory/ Flash, CRT, TTL, extended temp. -40 ~ 85° C



Features

- AMD low power LX800 500 MHz processor
- Supports extended temperature -40 ~ 85° C
- PC/104-plus Expansion
- On board 1 GB flash and 512 DDR333 SDRAM memory on board
- Supports Embedded Software API and Utility

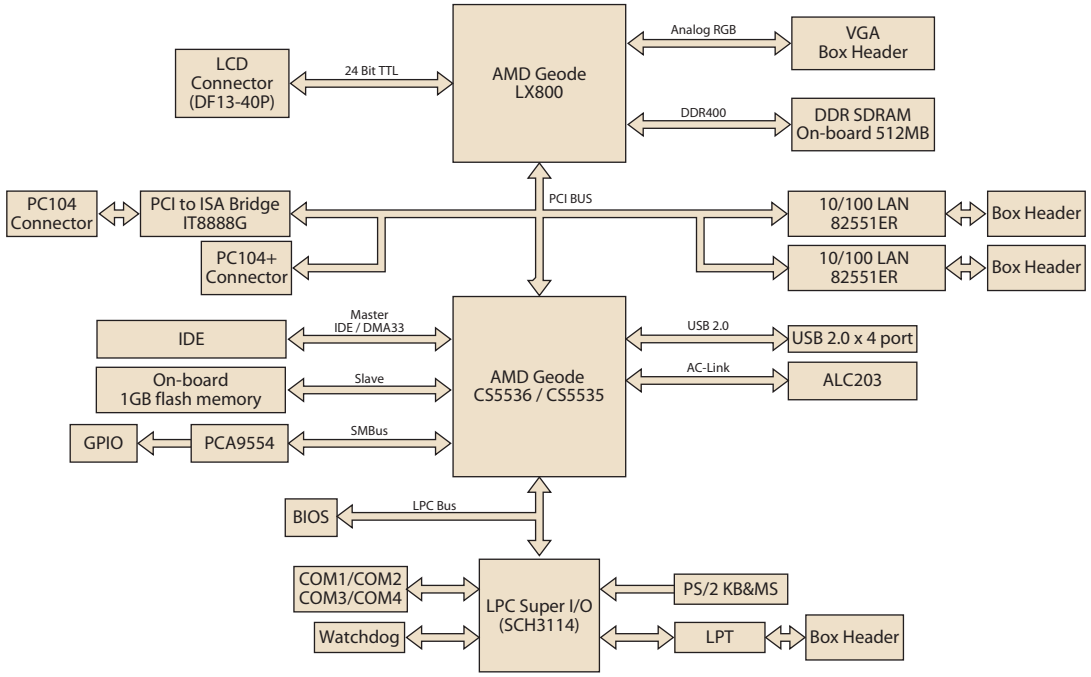
Software APIs: SMBus, H/W Monitor, Brightness, Watchdog, GPIO, Backlight On/Off

Utilities: BIOS flash, Monitoring

Specifications

Processor System	CPU	AMD Geode™ LX800, 500 MHz
	Frequency	500 MHz
	L2 Cache	128 KB
	System Chipset	AMD Geode™ LX800, +AMD CS5536
	BIOS	Award 4-Mbit
Memory	Technology	DDR 333/400 MHz
	Max. Capacity	512MB
	On board memory	512MB
Display	Chipset	AMD Geode™ LX800
	VRAM	Optimized Shared Memory Architecture up to 64 MB system memory
	CRT	Supports up to 1920 x 1440 x 32 bpp at 85 Hz Supports up to 1600 x 1200 x 32 bpp at 100 Hz
	TTL LCD	Supports up to 1600 x 1200 x 32 bpp at 60 Hz for 24-bit TFT
	Dual Display	CRT+TTL
Ethernet	Speed	10/100 Mbps
	Controller	LAN1: Intel 82551ER LAN2: Intel 82551ER
	Connector	Box header
Audio	Chipset	Realtek ALC203
Watchdog Timer		Output System reset Programmable 1 ~ 255 sec
Storage	IDE	1
	On board Flash	1 GB (up to 4 GB)
Internal I/O	USB	4 x USB 2.0
	Serial	3 RS-232, 1 RS-232/422/485
	IDE	1
	Parallel(LPT)	1
	SMBUS	1
	KB/Mouse	1
	GPIO	8-bit general purpose input/output
Expansion	PC/104-Plus slot	1
Power	Power Type	AT
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption (Typical)	+5 V @ 1.35 A, +12 V @ 0.1 A
	Power Consumption (Max, test in HCT)	+5 V @ 1.51 A, +12 V @ 0.1 A
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH non-condensing)
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	96 x 115 mm (3.8" x 4.5")
	Weight	0.162 kg (0.357 lb) (with heat-sink)

Board Diagram



Ordering Information

Part No.	CPU	Chipset	Onboard Memory	CRT	TTL	LVDS	LAN	USB2.0	RS-232	RS-232/ 422/485	LPT/ KB/MS	Onboard Flash	Audio	PC/104+ connector	Thermal Solution	Operating Temp.	ETT Service	Embedded OS
PCM-4153F-L0A2E	AMD LX800	CS5536	512 MB	Yes	18/24 bit	-	2 FE	4	3	1	Yes	1 GB	Yes	Yes	Passive	0 ~ 60° C	-	WinCE (optional)
PCM-4153FZ-L0A2E	AMD LX800	CS5536	512 MB	Yes	18/24 bit	-	2 FE	4	3	1	Yes	1 GB	Yes	Yes	Passive	-20 ~ 80° C	-	WinCE (optional)
PCM-4153FZ2-L0A2E	AMD LX800	CS5536	512 MB	Yes	18/24 bit	-	2 FE	4	3	1	Yes	1 GB	Yes	Yes	Passive	-40 ~ 85° C	-	WinCE (optional)

Packing List

Part No.	Description	Quantity
	PCM-4153 SBC	
	Startup Manual	
	Utility CD	
1700000898	VGA cable D-SUB 15P(F)/12P-1.25 mm 15 cm	x1
1700000918	Audio cable 10 cm x 1	
1700003491	AT power cable 1 x 8P-2.0/B4P-5.08 x 2 15 cm	x1
1700060202	Cable 6P-6P-6P PS/2 KB & Mouse 20 cm	x1
1700260250	LPT Port cable 25P to 26P 2.0 mm 25 cm	x1
1701100202	LAN FLAT CABLE IDC10P 2.0 mm/RJ-45 20 cm	x1
1701400181	COM 4 ports FLAT CABLE 18 cm IDC40P 2.0 mm	x1
1701440350	IDE cable 44P/44P/44P 35 cm	x1
1703040157	RS-422/485 W/D-SUB COM 4P 15 cm	x1
1703060053	PS2 Cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm	x1
1703100121	USB 2Ports cable 10P 12 cm IDC 2.0 mm	x1
9660104000	PC/104 screw and copper post package	x1

Embedded OS/API

Embedded OS/API	Description
WinCE 5.0	2070000729: Image GX3 CE 5.0 Pro Plus Eng
WinCE 6.0	2070001612: CE60 Pro GX3 4 Com V1.0 ENG
Win XPE	2070001576: XPE FP2007 GX3 (LX800) V3.0 ENG 2070003216: XPE FP2007 GX3 Group V3.1 ENG (717.22 MB) 2070003557: XPE FP2007 GX3 Group V3.0 CHS (641.41 MB)
SUSI	205E000019: SUSI 3.0 SW API for ESBC B: 20091116 XP
QNX	QNX 6.3.2 QNX 6.4.1

Optional Accessary

Part No.	Dexcription
1653130421	PCI-104 connector 120pin (Long pin)
165313222B	PC/104 connector 64pin (Long pin)
165312022B	PC/104 connector 40pin (Long pin)

PC/104 Datacom Modules

PCM-3614I/3618I

4/8-port RS-232/422/485 PCI-104 Modules

Specifications

General	
Connectors	PCM-3614I: 1 x 40-pin box header, PCM-3618I: 2 x 40-pin box header
Ports	PCM-3614I: 4, PCM-3618I: 8
Power Consumption	+5 V @ 450 mA
Communications	
Data Bits	5, 6, 7, 8
Data Signals	RS-422: TxD+, TxD-, RxD+, RxD-, CTS+, CTS-, RTS+, RTS- RS-485: DATA+, DATA-, GND RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
IRQ	3, 4, 5, 6, 7, 9, 10, 11, 12, 15
Parity	None, even and odd
Speed	50 bps ~ 921.6 kbps
Stop Bits	1, 1.5, 2
Protection	
EFT Protection	1,000 V_{DC}
Environment	
Operating Humidity	0 ~ 90 % RH
Operating Temperature	0 ~ 65° C (32 ~ 149° F)
Storage Temperature	-25 ~ 80° C (-13 ~ 176° F)
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")

Ordering Information

P/N	Description
PCM-3614I-AE	4-port RS-232/422/485 PCI-104 Module
PCM-3618I-AE	8-port RS-232/422/485 PCI-104 Module

PCM-3620

USB 2.0/IEEE 1394a PC/104-Plus Module

Specifications

General	
Bus Interface	PC/104-Plus (ISA/PCI)
Chipset	NEC® uPD720101 and TI TSB43AB23
USB	4 x USB 2.0 Compliant Ports Compliant with OHCI USB Rev 1.0a Compliant with EHCI for USB Rev 1.0 High-speed (480 Mbps), full-speed (12 Mbps) and low-speed (1.5 Mbps) transfer
IEEE 1394a	3 port compliant with 1394 Open Host Controller Interface Specification (Release 1.1)
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.81 kg (0.18 lb)
Temperature	Standard operating: 0 ~ 60° C (32 ~ 140° F). [Optional operating: -20 ~ 80° C (-4 ~ 176° F).]
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Supply Voltage	+5 V , +12 V

Ordering Information

P/N	Description
PCM-3620-00A1E	4 x USB 2.0 and 3 IEEE 1394a PC/104-Plus Module
PCM-3620P-00A1E	4 x USB 2.0 & 3 IEEE 1394a w/pinhead PC/104-Plus module

PCM-3621

4 SATA PC/104-Plus Module

Specifications

General	
Bus Interface	PC/104-Plus
SATA Chip	Silicon Image® Sil3114
GPIO	8-bit with LED
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5") compliant with PC/104-plus 1.2
Weight	0.084 kg (0.185 lb)
Temperature	0 ~ 60° C (32 ~ 140° F), operating
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Supply Voltage	+5 V, +12 V

Ordering Information

P/N	Description
PCM-3621-00A1E	PC/104-plus four channels SATA Module

PCM-3641I/3642I

4/8-port RS-232 PCI-104 Modules

Specifications

General	
Connectors	PCM-3641I: 1 x 40-pin box header, PCM-3642I: 2 x 40-pin box header
Ports	PCM-3641I: 4, PCM-3642I: 8
Power Consumption	+5 V @ 250 mA (max.)
Communications	
Data Bits	5, 6, 7, 8
Data Signals	TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
IRQ	3, 4, 5, 6, 7, 9, 10, 11, 12, 15
Parity	None, even and odd
Speed	50 bps ~ 460.3 kbps
Stop Bits	1, 1.5, 2
Protection	
EFT Protection	1,000 V_{DC}
Environment	
Operating Humidity	0 ~ 90 % RH
Operating Temperature	0 ~ 65° C (32 ~ 149° F) (IEC-68-1-1, 2)
Storage Temperature	-25 ~ 80° C (-13 ~ 176° F)
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")

Ordering Information

P/N	Description
PCM-3614I-AE	4-port RS-232 PCI-104 Module
PCM-3618I-AE	8-port RS-232 PCI-104 Module

PC/104 Datacom Modules

PCM-3643

4/8 RS-232 COM Port Module

Specifications

General	
Bus Interface	PC/104 (ISA)
Chipset	Standard 16550, 16650, or 16750 compatible chipsets for serial ports
Channel	4/8 port RS-232 support
Baud Rate	50 ~ 115, 200 bps
Data Bits	5, 6, 7 or 8-bits
Stop Bit	1, 1.5, or 2
Parity	Even, odd, or none
Interrupt Level	IRQ 3, 4, 5, 6, 7, 9, 10, 11, 12 or 15
I/O Connector	40-pin header
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.084 kg (0.185 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F); Storage: -40 ~ 85° C (-10 ~ 185° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Supply Voltage	+5 V, ± 5 % tolerance on power supply
Power Consumption	+5 V @ 400 mA (typical)

Ordering Information

P/N	Description
PCM-3643-08A1E	8 x COM RS-232 Port Module
PCM-3643-04A1E	4 x COM RS-232 Port Module

PCM-3644

RS-232/422/485 COM Port Module

Specifications

General	
Bus Interface	PC/104-Plus (ISA/PCI)
I/O Address	0 x 000 ~ 0 x 3F8
UART	4 x 16C550 (PCM-3614), 8 x 16C550 (PCM-3618)
IRQ	3, 4, 5, 6, 7, 9, 10, 11, 12, 15
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	none, even, odd
Speed (bps)	50 ~ 921.6 K
Connectors	4/8 DB-9 male
Signal Support	TxD+, TxD-, RxD-. CTS+, CTS-, RTS+ and RTS-
Surge Protection	1000 V_{DC}
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.084 kg (0.185 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F); Storage: -40 ~ 85° C (-10 ~ 185° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Supply Voltage	+5 V, ± 5 % tolerance on power supply
Power Consumption	+5 V @ 400 mA (typical)

Ordering Information

P/N	Description
PCM-3644-08A1E	8 x COM RS-232 Port Module
PCM-3644-04A1E	4 x COM RS-232 Port Module
PCM-3644H-04A1E	4 x COM RS-422 Port Module

PCM-3663

Twin 10/100 Mbps LAN Module

Specifications

General	
Chipset	Intel® 82551ER (PCI 10/100 Mbps)
Port	Single/Twin Ethernet port
Network Port	10 Mbps IEEE 802.3, 100 Mbps IEEE 802.3u, 1 x RJ-45
Compatibility	PCI version 2.2, 10/100 Mbps CSMA/CD 10/100 Mbps transceiver
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.09 kg (0.198 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-10 ~ 185° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Consumption	+5 V @ 800 mA (typical), 0.084 kg (0.185 lb)
Power Supply Voltage	+5 V, ±5 % tolerance on power supply

Ordering Information

P/N	Description
PCM-3663-02A1E	10/100 Mbps Twin 82551 Ethernet Module
PCM-3663-03A1E	10/100 Mbps Single 82551 Ethernet Module (Optional)

PCM-3665

Dual GbE Module

Specifications

General	
Bus Interface	PC/104 (ISA)
Chipset	Intel® 82541PI (PCI 10/100/1000 Mbps)
Port	Single/Twin Ethernet port
Speed	10/100/1000 Mbps
Compatibility	PCI version 2.2, 33 MHz PCI
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.09 kg (0.198 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-10 ~ 185° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Consumption	Dual LAN: +5 V @ 1.2 A (typical) Single LAN: +5 V @ 0.6 A (typical)
Power Supply Voltage	+5 V, ±5 % tolerance on power supply

Ordering Information

P/N	Description
PCM-3665-00A1E	Dual GbE with RJ45 connector Module
PCM-3665P-00A1E	Dual GbE w/o RJ45 connector Module
PCM-3665-01A1E	Single GbE w/o RJ45 connector Module

PC/104 Datacom Modules

PCM-3718H/HG/HO

100 kS/s, 12-bit, 16-ch PC/104 Multifunction Modules

Specifications

Analog Input		
Channels	16 single-ended / 8 differential	
Resolution	12 bits	
Max. Sampling Rate	100 KHz* (DMA transfer), *80 kHz on P4-based (or better)	
Input Impedance	10 MΩ	
Input Range		
PCM-3718H and PCM-3718HO	Bipolar:	±10, ±5, ±2.5, ±1.25, ±0.625
	Unipolar:	0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25
PCM-3718HG	Bipolar:	±10, ±5, ±1, ±0.5, ±0.1, ±0.05, ±0.01, ±0.005
	Unipolar:	0 ~ 10, 0 ~ 1, 0 ~ 0.1, 0 ~ 0.01
Analog Output (PCM-3718HO only)		
Channels	1 (12 bits)	
Output Rate	Static update	
Output Range	Internal Reference	Unipolar (V): 0 ~ 5, 0 ~ 10
	External Reference (V)	0 ~10, 0 ~ -10
Output Impedance	0.1 Ω max.	
Digital Input/Output		
Channels	16, 5V/TTL	
General		
I/O Connectors	2 x 20-pin box header	
Power Consumption	Typical: 5 V @ 180 mA; Max.: 5 V @ 400 mA	
Operating Temperature	0 ~ 60° C (32 ~ 140° F)	
Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")	

Ordering Information

P/N	Description
PCM-3718H	100 kS/s, 12-bit Multi. PC/104 Module
PCM-3718HG	100 kS/s, 12-bit High-gain Multi. PC/104 Module
PCM-3718HO	100 kS/s, 12-bit Multi. PC/104 Module w/AO

PCM-3730

16-ch Isolated Digital I/O PC/104 Module

Specifications

Digital Input	
Channels	16, 5 V/TTL
Interrupt Capable Ch.	4
Isolated Digital Input	
Channels	8
Input Voltage	Logic 0: 2 V max., Logic 1: 5 V min., 24 V max.
Isolation Protection	2,500 V_{DC}
Input Resistance	2 kΩ @ 0.5 W
Digital Output	
Channels	16, 5 V/TTL
Output Capability	Sink: 8 mA @ 0.5 V max., Source: -0.4 mA @ 2.4 V min.
Isolated Digital Output	
Channels	8
Output Type	Sink (NPN)
Isolation Protection	2,500 V_{DC}
Output Voltage	5 ~ 40 V_{DC}
General	
I/O Connectors	3 x 20-pin box header
Power Consumption	Typical: 330 mA @ +5 V; Max.: 500 mA @ +5 V
Operating Temperature	0 ~ 60° C (32 ~ 158° F)
Storage Temperature	-20 ~ 70° C (-4 ~ 158° F)
Storage Humidity	5 ~ 95% RH, non-cond.
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")

Ordering Information

P/N	Description
PCM-3730-AE	16-ch Isolated DI/O PC/104 Module w/ 20p Cable

PCM-3753I

96-ch Digital I/O PCI-104 Module

Specifications

Digital Input/Output	
Channels	96 (bi-directional)
Compatibility	5 V/TTL
Input Voltage	Logic 0: 0.8 V max. Logic 1: 2.0 V min.
Output Voltage	Logic 0: 0.4 V max. Logic 1: 2.4 V min.
Output Capability	Sink: 0.4 V @ 24 mA Source: 2.4 V @ 15 mA
General	
I/O Connectors	4 x IDC-50 pin
Operating Temperature	-20 ~ 70° C
Storage Temperature	-50 ~ 120° C
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")

Ordering Information

P/N	Description
PCM-3753I-AE	96-ch Digital I/O PCI-104 Module

PCM-3761I

8-ch Relay and 8-ch Isolated Digital Input PCI-104 Module

Specifications

Isolated Digital Input	
Channels	8
Input Voltage	Logic 0: 3 V max., Logic 1: 5 V min., 30 V max.
Input Current	2.5 mA @ 5 V, 15 mA @ 30 V
Input Resistance	2 kΩ 0.5 W
Isolation Protection	2,500 V_{DC}
Overvoltage Protection	70 V_{DC}
Interrupt Capable Ch.	8
Opto-isolator Response Time	25 µs
Relay Output	
Channels	8
Relay Type	DPDT, Form C
Contact Rating	240 V_{AC} @ 0.25 A, or 30 V_{DC} @ 1 A
Relay On Time	5 ms max.
Relay Off Time	4 ms max.
Life Span	1 x 10^7 @ 6 V/100 mA
Resistance Contact	< 50 mW
Insulation	1 GW min. (at 500 V_{DC})
General	
I/O Connectors	1 x IDC-50 pin, 1 x IDC-20 pin
Operating Temperature	0 ~ 60° C (32 ~ 140° F) (refer to IEC 68-2-1, 2)
Storage Temperature	-20 ~ 70° C (-4 ~ 158° F)
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")

Ordering Information

P/N	Description
PCM-3761I-AE	8-ch Relay/Isolated Digital Input PCI-104 Module

PC/104 I/O & Power Modules

PCM-3117

PCI to ISA Bridge Module

Specifications

General	
Bus Interface	PC/104-Plus
Controller	ITE IT8888F
Bus	PC/104 (ISA) and PC/104+ (PCI)
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.092 kg (0.203 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-40 ~ 18° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Supply Voltage	+5 V, ±5 % tolerance on power supply
Power Consumption	+5 V @ 70 mA (typical)

Ordering Information

P/N	Description
PCM-3117-00A1E	PCI to ISA bridge module

PCM-3835

IDE Flash Disk Module/ CompactFlash Card

Specifications

General	
Bus Interface	PC/104 (ISA)
IDE Connector	Two onboard 44-pin 2.0 mm pitch IDE connectors and one 40-pin 2.5 mm pitch IDE connector
Power Supply Voltage	+5 V ±10%
Environment	0 ~ 60° C, operating
Power Connector	Standard 4-pin power input
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.084 kg (0.185 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing

Ordering Information

P/N	Description
PCM-3835-00A1E	IDE Flash disk module

PCM-3836

IDE Flash Disk Module/ CompactFlash Card

Specifications

General	
Bus Interface	PC/104 (ISA)
IDE Connector	One 40-pin 2.5 mm pitch IDE connector
Power Supply Voltage	+5 V ±10%
Environment	0 ~ 60° C, operating
Power Connector	Standard 4-pin power input
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.084 kg (0.185 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing

Ordering Information

P/N	Description
PCM-3836-0000E	IDE Flash disk module (Type II)

PCM-3910

DC to DC Power Supply PC/104-plus Module

Specifications

General	
Bus Interface	PC/104-Plus
Input Voltage	10 V to 24 V_{DC} ±5%
Output Voltage	5 V output 10.0 A 12 V output 2.0 A -5 V output 0.4 A (optional) -12 V output 0.4 A
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Temperature	0 ~ 60° C (32 ~ 140° F)
Weight	0.084 kg (0.185 lb)
Operating Humidity	0% ~ 90% relative humidity, non-condensing

Ordering Information

P/N	Description
PCM-3910-00A1E	DC to DC power module PC/104-plus Module

Note: For wide temperature, please contact sales rep.

PC/104 PCMCIA Modules

PCM-3110C

1-slot PCMCIA Module

PCM-3110C

Features

- Supports Type I, II, III PCMCIA cards
- 16-bit data bus
- Busy status LED

Specifications

General	
Bus Interface	PC/104 (ISA)
Standard	Compliant with PCMCIA V2.10 and JEIDA 4.1
PC Card Format	Accepts Type I/II/III PCMCIA cards
Data Bus	16-bit
Secondary	Supports (PC/104 or external drive)
PCMCIA	Card drive with PC/104 bus
Drive	1 main PCMCIA slot extended to 2nd slot with extended (TEAC) FDD extended to 3.5" FDD bay
BIOS	Programmable 32 KB SMD boot Flash BIOS
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.092 kg (0.203 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-40 ~ 185° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Supply Voltage	+5 V, ±5 % tolerance on power supply
Power Consumption	+5 V @ 70 mA (typical)

Packing List

P/N	Description	Quantity
-	User's manual	x 1
PCM-3110C	1-slot PCMCIA Module	x 1

Ordering Information

P/N	Description
PCM-3110C-0000E	PCMCIA Module

PCM-3112

2-slot PCMCIA Module

PCM-3112

Features

- Two PCMCIA slots
- Bootable from linear Flash card or ATA Flash, ATA HDD
- 16-bit data bus
- Busy status LED

Specifications

General	
Bus Interface	PC/104 (ISA)
Standard	Compliant with PCMCIA V2.10 and JEIDA 4.1 spec
PC Card Format	Accepts Type I/II/III PCMCIA cards
Data Bus	16-bit
Secondary	Features 2 x PCMCIA drives
BIOS	Programmable 32 KB SMD-type boot EEPROM BIOS
Mechanical and Environmental	
Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
Weight	0.1 kg (0.22 lb)
Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-40 ~ 185° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	
Power Supply Voltage	+5 V, ± 5 % tolerance on power supply
Power Consumption	+5 V @ 70 mA (typical)

Packing List

P/N	Description	Quantity
-	User's manual	x 1
PCM-3112	2-slot PCMCIA Module	x 1

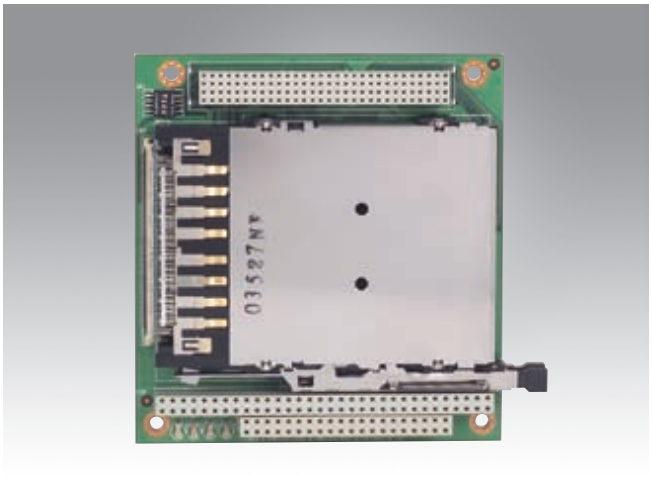
Ordering Information

P/N	Description
PCM-3112-0000E	2-slot PCMCIA module

PC/104 PCMCIA Modules

PCM-3115

2-slot CardBus PC/104-Plus Module



Features

- High-performance (PC/104-Plus)
- Low power consumption (Hardware Suspend)
- Compliant with PC Card 95/97/98, Card-32 (32 Bit), PCMCIA V2.1/JEIDA 4.2 (16 Bit)
- Accepts Type I/II/III PCMCIA cards
- Supports two PCMCIA slots (when Type III card used in Slot 2, Slot 1 will be occupied too)

Specifications

General	Bus Interface	PC/104-Plus (ISA/PCI)
	Chipset	Ricoh® CardBus Controller
	16-bit Legacy Mode	YES (3E0/3E2 I/O port) support
	GPIO Support	YES
	PCI way Legacy DMA	YES supported
	Data Bus	32-Bit data bus (Compliant with PCI Bus Specification 2.1)
	PCI Interface	3.3 V interface (5 V tolerant)
	H/W Configuration	Plug & Play automatic detection & configuration
	S/W Driver	Supports Windows® NT 4.0, Windows® 95/98/2000
Mechanical and Environmental	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")
	Weight	0.094 kg (0.207 lb)
	Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-40 ~ 185° F)
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Power	Power Supply Voltage	+5 V, ± 5 % tolerance on power supply
	Power Consumption	+5 V @ 70 mA (typical)

Ordering Information

P/N	Description
PCM-3115-00B1E	2-slot CardBus module

Packing List

P/N	Description	Quantity
-	Startup manual	x 1
-	CD-ROM (Manual, driver, utility)	x 1
PCM-3115	2-slot CardBus Module	x 1